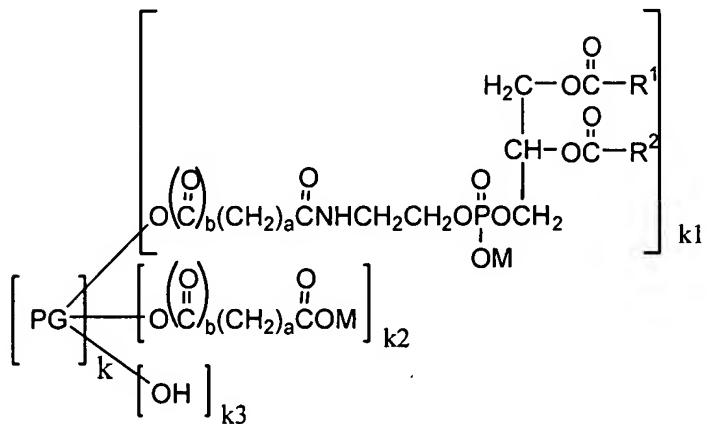


### **Amendments to the Claims:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Original) A phospholipid derivative represented by the following formula (1):



wherein  $[PG]_k$  represents a residue of polyglycerin having a polymerization degree of  $k$ , wherein  $k$  is 2 to 50,  $R^1CO$  and  $R^2CO$  independently represent an acyl group having 8 to 22 carbon atoms, symbol "a" independently represents an integer of 0 to 5, symbol "b" independently represents 0 or 1,  $M$  represents hydrogen atom, an alkali metal atom, an ammonium, or an

organic ammonium, and k1, k2, and k3 represent numbers satisfying the following conditions:  $1 \leq k1 \leq (k+2)/2$ ,  $0 \leq k2$ , and  $k1 + k2 + k3 = k + 2$ .

2. (Original) The phospholipid derivative according to claim 1, wherein k1 satisfies  $1 \leq k1 \leq 2$ .

3. (Currently Amended) The phospholipid derivative according to claim 1 or 2, wherein k2 satisfies  $0 \leq k2 \leq 1$ .

4. (Currently Amended) The phospholipid derivative according to claim 1 any one of claims 1 to 3, wherein k1, k2, and k3 satisfy  $8 \leq k1 + k2 + k3 \leq 52$ .

5. (Currently Amended) The phospholipid derivative according to claim 1 any one of claims 1 to 4, wherein  $R^1CO$  and  $R^2CO$  independently represent an acyl group having 12 to 20 carbon atoms.

6. (Currently Amended) The phospholipid derivative according to claim 1 any one of claims 1 to 5, wherein k2 is 0.

7. (Original) The phospholipid derivative according to claim 6, wherein a and b represent 0.

8. (Currently Amended) The phospholipid derivative according to claim 1 any one of claims 1 to 5, wherein k2 satisfies  $0 < k2$ .

9. (Currently Amended) A lipid membrane structure comprising the phospholipid derivative according to claim 1 any one of claims 1 to 8.

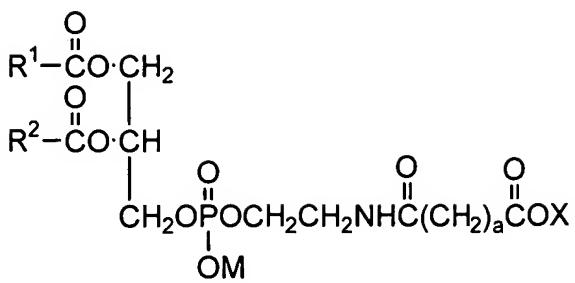
10. (Original) The lipid membrane structure according to claim 9, which is a liposome.

11. (Currently Amended) A surfactant comprising the phospholipid derivative according to claim 1 any one of claims 1 to 8.

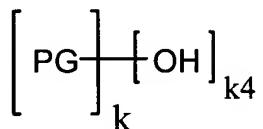
12. (Currently Amended) A solubilizer comprising the phospholipid derivative according to claim 1 any one of claims 1 to 8.

13. (Currently Amended) A dispersing agent comprising the phospholipid derivative according to claim 1 any one of claims 1 to 8.

14. (Original) A method for producing the phospholipid derivative according to claim 1, which comprises the step of reacting a compound represented by the following formula (2):



wherein  $\text{R}^1$ ,  $\text{R}^2$ ,  $a$ , and  $\text{M}$  have the same meanings as defined above, and  $\text{X}$  represents hydrogen atom or N-hydroxysuccinimide, with a polyglycerin represented by the following formula (3):



wherein  $[\text{PG}]_k$  represents a residue of polyglycerin having a polymerization degree of  $k$ , wherein  $k$  has the same meaning as defined above, and  $k4$  is a number satisfying the following condition:  $k4 = k + 2$ .

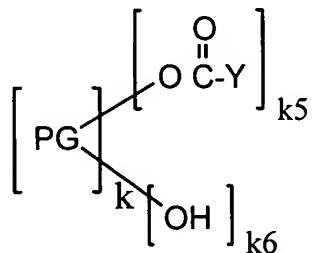
15. (Original) A method for producing the phospholipid derivative according to claim 1, which comprises the following steps:

- (A) the step of reacting a polyglycerin with a dibasic acid or a halogenated carboxylic acid to obtain a carboxylated polyglycerin; and
- (B) the step of reacting the carboxylated polyglycerin obtained in the step (A) with a phospholipid.

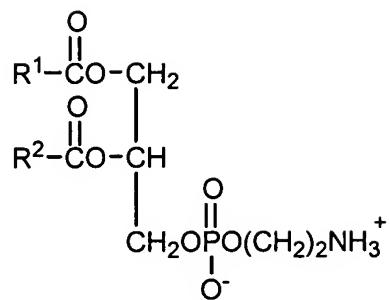
16. (Original) A method for producing the phospholipid derivative according to claim 1, which comprises the following steps:

- (A) the step of reacting a polyglycerin with a halogenated carboxylic acid ester and hydrolyzing the resulting ester compound to obtain a carboxylated polyglycerin; and
- (B) the step of reacting the carboxylated polyglycerin obtained in the step (A) with a phospholipid.

17. (Currently Amended) A method for producing the phospholipid derivative according to claim 1 ~~any one of claims 1 to 7~~, which comprises the step of reacting a polyglycerin derivative represented by the following formula (4):



wherein  $[\text{PG}]_k$  represents a residue of polyglycerin having a polymerization degree of  $k$ , wherein  $k$  represent a number of 2 to 50,  $\text{Y}$  represents hydroxyl group or a leaving group, and  $k5$  and  $k6$  are numbers satisfying the following conditions:  $1 \leq k5 \leq (k+2)/2$ , and  $k5 + k6 = k + 2$ , with a phospholipid represented by the following formula (5):



wherein R<sup>1</sup> and R<sup>2</sup> have the same meanings as defined above, in an organic solvent in the presence of a basic catalyst.

18. (Original) A pharmaceutical composition containing the lipid membrane structure according to claim 9 retaining a medicament.

19. (Original) The pharmaceutical composition according to claim 18, wherein the medicament is an antitumor agent.